

**HEY! WHERE'S
THE 120v?**



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AH! AT THE OUTPUT OF THE SOLA[®] CONSTANT VOLTAGE TRANSFORMER!



It figures. You see, when you plug in or hook up to a power line, the *actual* voltage you get can be quite different from the *nominal* rating (120 volts, for instance) you expect to get. Since this difference can be on the high side or low side, and can seriously affect production or product quality, the need for voltage *regulation* in industry is vitally important. And that's where Sola CV (constant voltage) transformers fit into the picture.

WHY VOLTAGE VARIES

On a 120v nominal power line, the actual voltage delivered to a plant from the utility may vary from 103 to 129 volts, a 26 *volt* variation. How come? Well, the utility company tries to keep the voltage at the *center* of the line at the nominal rating. Under normal loads, the first customer is just a little *over*, and the last customer just a little *under* the nominal rating (due to the progressive drop along the line).

However, during periods of heavy load, the

Under-voltage reduces efficiency and may cause malfunction in even simple electrical devices like solenoids, electron tubes, ovens, motors and lights.

Over-voltage significantly shortens the life of most electrical devices, including transistors, lamps, tubes, ovens and solenoids.

Any piece of equipment containing a component that is affected by voltage will itself be affected by voltage variation.

As a user of equipment that would be affected by voltage fluctuation, you will benefit by adding SOLA CV transformers to regulate and protect units that don't have voltage regulators built into them.

CHOOSING THE RIGHT CV

SOLA offers the broadest line in the industry, in four basic types: CVS, CVN, CVF and CVE. Types CVE and CVF are designed for electron tube plate and filament regulation applications.

Remember...

- Voltage varies
- Voltage variation causes problems
- SOLA CV solves these problems



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SOLA
CONSTANT VOLTAGE

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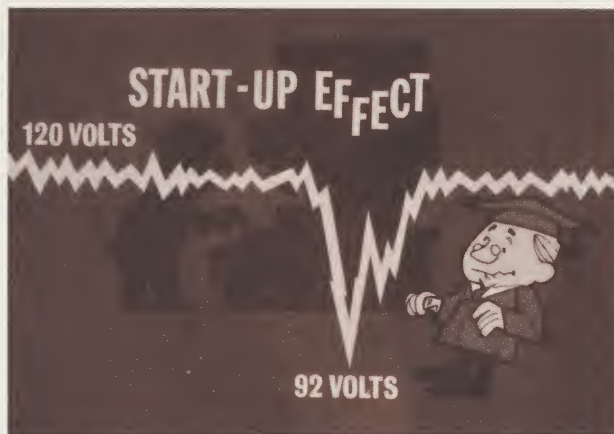
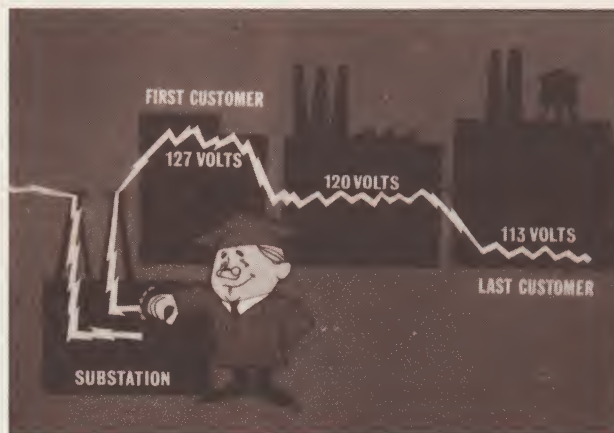
Attn: Bill Earnst

voltage drop is correspondingly larger. Thus, to maintain the center of the line at 120 volts, the utility boosts the voltage. So the first customer may be getting 127 volts, and the last only 113 volts (Fig. 1).

The second basic reason for voltage variation is due to conditions within the plant itself. When a heavy piece of equipment that draws a lot of current is turned on or off, the voltage may suddenly drain down or jump up. At start-up, for example, voltage can drop to only 92 volts (Fig. 2). And when such equipment is turned off, there is a sudden, though temporary, jump in voltage.

SO, WHAT?

Just this. Voltage fluctuation causes poor performance, and is likely to damage sensitive electronic devices such as data handling equipment, electronic instruments and electronically controlled machine tools.

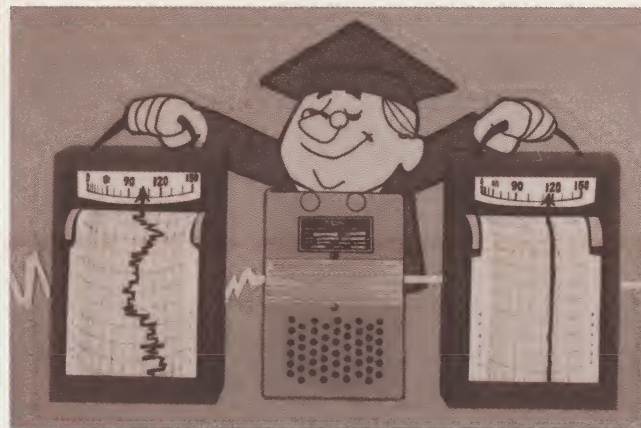


WHAT'S THE ANSWER?

If you're having voltage fluctuation problems, you can get the automatic, continuous protection you need from the SOLA Constant Voltage Transformer. Connected between the AC power supply and the working equipment, output of the SOLA CV transformer will remain virtually constant at 118v, even though the incoming voltage varies from as little as 90 volts to as much as 130 volts. (Fig. 3).

HOW YOU WILL BENEFIT

As a manufacturer of electrical or electronic equipment that would be affected by voltage fluctuation, you can install a SOLA CV transformer as a component of each new unit to regulate the line voltage going into the equipment.



Type CVS is the newest version of the basic Constant Voltage Transformer, and provides a perfect output wave form. Since it will work in all general line regulation applications, we recommend its use wherever possible.

WHY SOLA CV

Regulation. Automatic and continuous regulation of output voltage to $\pm 1\%$ for input line voltage variation up to $\pm 15\%$. This regulation is maintained from 20% to full load.

Response Time. While no voltage regulator acts instantaneously, response time of the SOLA CV transformer is a mere 25 milliseconds at 60 cycles.

Short Circuit Protection. If the SOLA unit or the regulated equipment is shorted, output voltage immediately drops to zero, and output current is limited to 125% to 200% of rated value, protecting both the transformer and the equipment.

Current Limiting. With this overload protection, the SOLA CV transformer limits inrush current to cold filaments, thus preventing damage to the filaments.

Isolation. All SOLA CV transformers have a high degree of isolation between input and output, just as in a conventional double-wound transformer.

Reliability. SOLA CV transformers are simple, rugged, with no moving parts and nothing to wear. No manual adjustment or maintenance ever required.



PLEASE SEND ME.....

... a free copy of the SOLA CV-100 Catalog. I understand there is no obligation.

Name _____ Title _____

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